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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/775,785

02/10/2004

Haixin Yang

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23906

7590

11/22/2006

E I DU PONT DE NEMOURS AND COMPANY
LEGAL PATENT RECORDS CENTER
BARLEY MILL PLAZA 25/1128
4417 LANCASTER PIKE
WILMINGTON, DE 19805

EXAMINER

SHOSHO, CALLIE E

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 11/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/775,785	YANG, HAIXIN	
	Examiner	Art Unit	
	Callie E. Shosho	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. All outstanding rejections except for those described below are overcome by applicant's amendment filed 9/6/06. It is noted that the double patenting rejection of record is overcome in light of applicant's filing of proper terminal disclaimer.

The new grounds of rejection set forth below are necessitated by applicant's amendment and thus, the following action is final.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-3 and 5-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 has been amended to recite that the conductive material has "particle size of greater than 0.1 to 1.2 microns". It is the examiner's position that this phrase fails to satisfy the written description requirement under the cited statute since there does not appear to be a written description requirement of the cited phrase in the application as originally filed, *In re Wright*, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989) and MPEP 2163.

As support for the above amendment, applicant point to page 5 of the present specification. However, while this portion of the specification as originally filed provides support to recite that the conductive material has average particle size (D_{50}) of 0.1 to 1.2 microns, there is no support to recite that the conductive material has particle size “greater than” 0.1 to 1.2 microns. That is, while this portion of the specification provides support to recite values of average particle size, there is no support for the broad recitation of particle size (not average). Further, while there is support in the specification as originally filed to recite that the lower limit of the average particle size is 0.1 micron, there is no support to recite that the average particle size is “greater than” 0.1 micron as presently claimed.

It is noted, based on the disclosure on page 5 of the present specification, that when considering prior art, the examiner has considered the recitation of “particle size” in the present claims to mean “average particle size”.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 5, 9, 15, and 17-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) Claim 5, which depends on claim 1, recites the limitation "said organic polymer" in lines 1-2. In light of the amendment to claim 1, there is insufficient antecedent basis for this limitation in the claim.

Similar insufficient antecedent basis is found in claim 9 which also depends on claim 1 and which also recites "said organic polymer" in line 1.

(b) Newly added claim 15 recites that the composition "exhibits stability for up to 24 hours and may be ink jetted without further agitation". The scope of the claim is confusing in light of the use of the word "may" given that it is not clear if the ink is actually ink jetted without further agitation or only "may" be able to be. Further, the scope of the claim is confusing in light of the phrase "further agitation" given that it is not clear what is meant by "further" agitation given that there is no previous disclosure of agitation and thus, it is not clear what the agitation of claim 15 is "further" to. Clarification is requested.

(c) Newly added claim 17, which depends on claim 1, recites "wherein said composition is applied to a substrate selected from the group consisting of glass, ceramic, and plastic". The scope of the claim is confusing given that claim 1 is drawn to product, i.e. ink jet printable composition, while claim 15 is drawn to process of using the product, i.e. applying to substrate. Thus, it is not clear what is being claimed - product or process.

Similar confusion arises with respect to claim 18, which also depends on claim 1, and which is drawn to process of using the product of claim 1. The scope of claim 18 is also confusing given that it is not clear what is being claimed - product or process.

Claim Rejections - 35 USC § 102

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1-3, 5, 8-10, 12, and 14-17 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 19846096.

The rejection is adequately set forth in paragraph 7 of the office action mailed 4/7/06 and is incorporated here by reference.

It is further noted that the conductive material is in the form of agglomerates and possesses average particle size of less than 500 nm (col.3, lines 13-14 and 21-25) and that the ink is printed onto substrate such as glass (col.17, line 7 after the table).

Although there is no explicit disclosure that the ink exhibits stability up to 24 hours and may be jetted without further agitation, given that DE 19846096 discloses ink identical to that presently claimed, it is clear that the ink would also inherently possess same stability and jettability as presently claimed.

8. Claims 1-3, 5-6, 8-12, and 14-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Kudas et al. (U.S. 2003/0175411).

The rejection is adequately set forth in paragraph 8 of the office action mailed 4/7/06 and is incorporated here by reference.

It is further noted that the conductive material possesses average particle size of at least about 0.1 μm , preferably 0.3-3 μm (paragraph 141), that the ink is printed onto substrate such as

glass (paragraph 296), that the ink possesses curable monomer (paragraph 301), and that the composition is applied as a line width of 100 microns and line thickness of about 1 micron using ink jet printing (paragraph 434).

Although there is no explicit disclosure that the ink exhibits stability up to 24 hours and may be jetted without further agitation, given that Kodas et al. disclose ink identical to that presently claimed, it is clear that the ink would also inherently possess same stability and jettability as presently claimed.

Claim Rejections - 35 USC § 103

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai (U.S. 2003/0146019) in view of Zhu et al. (U.S. 6,251,175).

The rejection is adequately set forth in paragraph 13 of the office action mailed 4/7/06 and is incorporated here by reference.

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over DE 19846096 or Kodas et al. (U.S. 2003/0175411) either of which in view of Shioi et al. (U.S. 4,657,591).

The rejection is adequately set forth in paragraph 14 of the office action mailed 4/7/06 and is incorporated here by reference.

12. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kodas et al. (U.S. 2003/0175411) in view of Adkins et al. (U.S. 6,379,444).

The disclosure with respect to Kodas et al. in paragraph 8 above is incorporated here by reference.

The difference between Kodas et al. and the present claimed invention is the requirement in the claim of specific type of monomer.

Adkins et al., which is drawn to ink jet ink, disclose the use of monomer such as trimethylolpropane tri(meth)acrylate in order to enhance curability of the ink (col.10, lines 29-64).

In light of the motivation for using specific monomer disclosed by Adkins et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use of such monomer in the ink of Kodas et al. in order to enhance curability, and thereby arrive at the claimed invention.

13. Claims 1-3, 8-10, 12, and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai (U.S. 2003/0146019).

Hirai discloses ink jet ink comprising 1-50% conductive functional material such as gold, silver, copper, cobalt, etc., solvent such as alcohol, and polyvinyl pyrrolidone dispersed in the solvent. The conductive material possesses average particle size of 1-100 nm. The polyvinyl pyrrolidone is present in amount of 0.1-2 times the amount of functional material. It is disclosed that the ink possesses viscosity of 1-20 cP. There is also disclosed ink jet printer cartridge comprising the ink. It is further disclosed that the ink is printed onto substrate such as glass and

that the ink is applied to substrate using ink jet printing to produce line width greater than 10 microns and line thickness of 0.1-10 microns (paragraphs 15-16, 19, 26-27, 31, 35, 47-49, 53, 75-76, and 84). Attention is drawn to example 6 that discloses ink jet ink comprising 12% copper particles, polyvinyl pyrrolidone, and methanol solvent wherein the ink has viscosity of 10.5 cP. It is disclosed that the weight ratio of polyvinyl pyrrolidone to copper is 0.35 and thus, it is calculated that the amount of polyvinyl pyrrolidone present is approximately 4.2%. Although there is no explicit disclosure of the amount of solvent utilized, given that the polyvinyl pyrrolidone is present in amount of 4.2% and the copper present in amount of 12%, it is calculated that the solvent is present in amount of approximately 84%.

The only deficiency of Hirai is that Hirai discloses the use of conductive material possessing average particle size of 100 nm while the present claims require conductive material possessing average particle size of “greater than” 100 nm.

It is apparent, however, that the instantly claimed particle size and that taught by Hirai are so close to each other that the fact pattern is similar to the one in *In re Woodruff*, 919 F.2d 1575, USPQ2d 1934 (Fed. Cir. 1990) or *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed.Cir. 1985) where despite a “slight” difference in the ranges the court held that such a difference did not “render the claims patentable” or, alternatively, that “a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough so that one skilled in the art would have expected them to have the same properties”.

In light of the case law cited above and given that there is only a “slight” difference between the particle size disclosed by Hirai and the particle size disclosed in the present claims,

it therefore would have been obvious to one of ordinary skill in the art that the particle size disclosed in the present claims is but an obvious variant of the particle size disclosed in Hirai et al. and also that the ink of Hirai would also intrinsically possess same stability and jettability as presently claimed, and thereby one of ordinary skill in the art would have arrived at the claimed invention.

14. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai as applied to claims 1-3, 8-10, 12, and 14-18 above, and further in view of Shioi et al. (U.S. 4,657,591).

The difference between Hirai and the present claimed invention is the requirement in the claim that the conductor material is coated with fatty acid surfactant.

Shioi et al., which is drawn to inks, disclose that it is well known to coat metal powder with fatty acid surfactant such as stearic acid in order to form thin and continuous layer of metal on the surface of coating (col.3, lines 1-11).

In light of the motivation for coating conductor material with fatty acid disclosed by Shioi et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to coat the conductive functional material of Hirai with fatty acid in order to produce ink with thin and continuous layer of metal on the surface, and thereby arrive at the claimed invention.

15. Claims 1-3, 5, 8-10, 12, and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 19846096.

DE 19846096, an English translation of which was provided by applicants, discloses ink jet ink comprising 10-99% solvent comprising water and/or organic solvent such as alcohol, ethylene glycol, etc., 0.05-80%, preferably 0.5-20%, conductive functional material that is metal oxide, and 0.1-20%, based on the amount of metal oxide, of at least one dispersant such as polyvinyl pyrrolidone and acrylic resin that is dispersed in the solvent. The conductive material possesses average particle size of 1-100 nm. It is disclosed that the ink possesses viscosity less than 20 mPas. The ink is printed onto substrate such as glass (page 2, lines 1-2, page 2, line 15-page 3, lines 11-12, page 3, line 26-page 4, line 1, page 5, line 7, page 6, lines 1-6, page 7, line 16-page 9, line 15, page 10, lines 5 and 13-26, page 12, lines 18-20, page 17, line 7 (after table), and example 6). It is disclosed that the ink is applied to substrate using ink jet printer which would inherently possess cartridge containing the ink as presently claimed.

The only deficiency of DE 19846096 is that DE 19846096 discloses the use of conductive material possessing average particle size of 100 nm while the present claims require conductive material possessing average particle size of "greater than" 100 nm.

It is apparent, however, that the instantly claimed particle size and that taught by DE 19846096 are so close to each other that the fact pattern is similar to the one in *In re Woodruff*, 919 F.2d 1575, USPQ2d 1934 (Fed. Cir. 1990) or *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed.Cir. 1985) where despite a "slight" difference in the ranges the court held that such a difference did not "render the claims patentable" or, alternatively, that "a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough so that one skilled in the art would have expected them to have the same properties".

In light of the case law cited above and given that there is only a “slight” difference between the particle size disclosed by DE 19846096 and the particle size disclosed in the present claims, it therefore would have been obvious to one of ordinary skill in the art that the particle size disclosed in the present claims is but an obvious variant of the particle size disclosed in DE 19846096 and also that the ink of DE 19846096 would also intrinsically possess same stability and jettability as presently claimed, and thereby one of ordinary skill in the art would have arrived at the claimed invention.

16. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over DE 19846096 as applied to claims 1-3, 5, 8-10, 12, and 14-17 above, and further in view of Shioi et al. (U.S. 4,657,591).

The difference between DE 19846096 and the present claimed invention is the requirement in the claim that the conductor material is coated with fatty acid surfactant.

Shioi et al., which is drawn to inks, disclose that it is well known to coat metal powder with fatty acid surfactant such as stearic acid in order to form thin and continuous layer of metal on the surface of coating (col.3, lines 1-11).

In light of the motivation for coating conductor material with fatty acid disclosed by Shioi et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to coat the conductive functional material of DE 19846096 with fatty acid in order to produce ink with thin and continuous layer of metal on the surface, and thereby arrive at the claimed invention.

Response to Arguments

17. Applicant's arguments regarding Tucker et al. (U.S. 2003/019943), Noguchi et al. (U.S. 5,798,397), and Loria et al. (U.S. 5,443,628) have been fully considered but they are moot in view of the discontinuation of the use of these references against the present claims.

18. Applicant's arguments filed 9/6/06 have been fully considered but, with the exception of arguments relating to Tucker et al., Noguchi et al., and Loria et al., they are not persuasive.

Specifically, applicant argues that Hirai is not a relevant reference against the present claims given that there is no disclosure in Hirai of conductive material that possesses particle size greater than 0.1 to 1.2 microns as required in all the present claims.

However, while it is agreed that Hirai is no longer applicable against the present claims under 35 USC 102, attention is drawn to paragraph 19 of Hirai that discloses that the conductive material possesses average particle size of 1-100 nm.

It is noted that Hirai discloses the use of conductive material possessing average particle size of 100 nm while the present claims require conductive material possessing average particle size of "greater than" 100 nm.

However, it is apparent, however, that the instantly claimed particle size and that taught by Hirai are so close to each other that the fact pattern is similar to the one in *In re Woodruff*, 919 F.2d 1575, USPQ2d 1934 (Fed. Cir. 1990) or *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed.Cir. 1985) where despite a "slight" difference in the ranges the court held that such a difference did not "render the claims patentable" or, alternatively, that "a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not

overlap but are close enough so that one skilled in the art would have expected them to have the same properties”.

In light of the case law cited above and given that there is only a “slight” difference between the particle size disclosed by Hirai and the particle size disclosed in the present claims, it therefore would have been obvious to one of ordinary skill in the art that the particle size disclosed in the present claims is but an obvious variant of the particle size disclosed in Hirai et al., and thus, the ink of Hirai would also intrinsically possess same stability and jettability as presently claimed, and thereby one of ordinary skill in the art would have arrived at the claimed invention.

On page 5 of the amendment filed 9/6/06, applicant also states that in a dependent claim the particle size has been restricted to 0.3-0.8 microns for an average particle size and that claim 1 indicates that D100, the maximum particle size of the conductive material, is 5 microns or less. However, it is noted that there is no such dependent claim present in the pending claims and further that there is no requirement in claim 1 regarding the maximum particle size of the conductive material.

Applicant also argues that DE 19846096 is not a relevant reference against the present claims given that DE 19846096 discloses the use of nano-sized conductive material, i.e. having average particle size of up to 100 nm, which is outside the scope of the present claims that now all require that the conductive material have (average) particle size greater than 0.1 to 1.2 microns.

However, on the one hand, it is noted that page 3, lines 13-14 of DE 19846096 discloses that in one embodiment, the conductive material is in the form of agglomerates possessing average particle size of less than 500 nm which clearly overlaps the particle size presently claimed.

On the other hand, in another embodiment (page 3, lines 11-12), DE 19846096 discloses that the conductive material possesses average particle size of 1-100 nm.

It is noted that DE 19846096 discloses the use of conductive material possessing average particle size of 100 nm while the present claims require conductive material possessing average particle size of “greater than” 100 nm.

However, it is apparent, however, that the instantly claimed particle size and that taught by DE 19846096 are so close to each other that the fact pattern is similar to the one in *In re Woodruff*, 919 F.2d 1575, USPQ2d 1934 (Fed. Cir. 1990) or *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed.Cir. 1985) where despite a “slight” difference in the ranges the court held that such a difference did not “render the claims patentable” or, alternatively, that “a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough so that one skilled in the art would have expected them to have the same properties”.

In light of the case law cited above and given that there is only a “slight” difference between the particle size disclosed by DE 19846096 and the particle size disclosed in the present claims, it therefore would have been obvious to one of ordinary skill in the art that the particle size disclosed in the present claims is but an obvious variant of the particle size disclosed in DE 19846096, and thus, the ink of DE 19846096 would also intrinsically possess same stability and

jettability as presently claimed, and thereby one of ordinary skill in the art would have arrived at the claimed invention.

Applicant argues that Kudas et al. is not a relevant reference against the present claims given that Kudas et al. disclose the use of conductive material that is nano-sized particles mixed with precursor composition while applicant's claims are directed to jet composition with large particles and low viscosity.

However, attention is called to paragraphs 31-32 of Kudas et al. that disclose that the conductive material is in the form of microparticles possessing average particle size of at least about 0.1 μm , preferably 0.3 – 3 μm which clearly meets the requirements in the present claims with respect to particle size. Further, attention is called to paragraph 349 of Kudas et al. that discloses that the composition has viscosity of not greater than 50 cP such as 10 to 40 cP which clearly meets the requirements in the present claims regarding the viscosity. Further, while it is agreed that the composition of Kudas et al. is a precursor composition, there is nothing in the scope of the present claims which excludes the use of such composition. The present claims are drawn to ink jet printable composition. Given that paragraphs 298 and 325-326 of Kudas et al. disclose that the composition is printed onto substrate using ink jet printer, it is clear that the precursor composition of Kudas et al. is ink jet printable as presently claimed.

Applicant also argues that the presently claimed conductive materials are not metal precursors and that Kudas et al. is not ink jetting the conductive material of the present invention but rather is ink jetting a precursor solution.

Given that Kudas et al. disclose the use of conductive material identical to that utilized in the present invention, i.e. silver, gold, copper, etc., as well as explicitly disclose the use of conductive metal oxides, it is clear that regardless of what Kudas et al. refers to such materials as, including metal precursors, they are identical to the conductive material presently claimed.

Further, while it is agreed that Kudas et al. disclose ink jetting a precursor solution (paragraph 298 and 325-326), however, this precursor solution contains conductive material as presently claimed (paragraphs 28 and 31-32). Attention is drawn to paragraph 78 that discloses that the conductive material, i.e. particulates, are deposited onto the substrate. Additionally, while the precursors are reacted using various gases to convert the precursor, this conversion appears to happen after the metal precursor, i.e. conductive material, is jetted onto the substrate (paragraphs 347-349 and 371). Thus, it is not clear why applicant argues that Kudas et al. do not ink jet the conductive material. Clarification is requested.

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

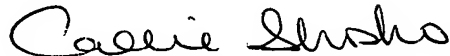
Kodas et al. '664 (U.S. 2003/0108664) is similar to Kodas et al. '411 (U.S. 2003/0175411), however, the viscosity of the composition of Kodas et al. '664 is outside the scope of the present claims.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
11/17/06